2332 College Ave.
Berkeley, California,
Feb. 24, 1919.

Dear Doctor Munz:-

I received your letter this morning and as I have the time and at the same time feel in the mood, I am going to write an answer now.

I am particularly interested in what you say in regard to you taking up ecological work. The last few months I was home I became very interested in that phase of botany and even went so far as to gather together a large mass of notes on the local plant formations, preparatory to a sketch on the ecology of the Claremont Region, especially the chaparral. While I was reading on the subject in general, I was very impressed with the great lack of any thorough treatment of our Pacific Coast flora from the ecological angle. It seem to me that th Clafemont area is a fine field for such a study. The successions of San Antonio Cañon Wash would be a wonderfully interesting ~~error~~ to work out. I was wondering, if the stream ceased to cut new beds, whether or not the area would tend towards chaparral as a climax. The washes near Etawanda, along the Highland Ave road to Berdoo, have large areas covered with Adenostoma which would seem to indicate that this might be the case. However there is a complicating factor in this question for true chaparral is typical of the Upper Sonoran Zone while according to the concehsus of opinions (the correctness of which I sometimes doubt) the washes are wholely, or at the least partly, Lower Sonoran ~~zone~~. The questi n which arises from this fact is this, is the wash-complex tending towards a chaparral climax and if so is it advisible to refer the wash land to Lower Sonoran ? In my notes on washes I thought I could detect a Lepidospartum association in the new wash beds, Artemisia association or brush land and finally the chaparral or chaparral-like association above mentioned.

You mentioned a paper by Munns on succession of chaparral. I tried to get hold of the Journal of Ecology but, up here, the Library has not received a c copy of the magazine since the war started. However as regards our chaparral above Claremont I have not the least doubt that it is a climax, on the Upper Sonoran slopes and will remain dominant until something unsets the balance. (This very point looks as tho it would give a very interestiong problem, -successions on a chaparral burn.) Plummer in his paper on Chaparral (U.S. Forest Service Bull. #85, p.9 (1911)) divides chaparrals into true and mock. Mock chaparral as used by him refers to the chaparral of temporary character which spring up after forest has been fire-swept. This kind of chaparral will no doubt be replaced by forests in time, but certainly the Upper Sonoran chaparral of the San Antonio Mts will not be.

Pardon me for spending so much time gassing on ecology but as you are probably aware by now I am very interested in the subject. You ask regarding my papers. My San Antonio Mt paper ought to appear in a month or a little over. I brought my mountain collections up here with me and at every opportunity I compare them with the abundance of material up here. I have corrected several very bad mistakes and have added a number of species to the list. I have a paper coming out in this next issue of the Bull. So. Cal. Acad. I am sort of anxious to see it for the printer makes a awful lot of mistakes and to my sorrow Dr. Davidson corrected the proof. I am sorrow to say that he is a very poor proof reader! I have just finished a list of Gastromycetes and polypores of the Claremont region but I dont know whether or not to publish it. I sent of a bunch of stuff to Lloyd and he named up a new lot of new stuff for me. I have two new Catastomas and Uplandii and a Johnstonii both very poorly ~~chosen~~ named.

I am getting very well acquainted up here. I have been granted full herbarium privalages of which I am very proud. Dr Hall, I am liking better every day. I dont know whether or not I told you that he is leaving up here.

(or rather will be after March 1st.)

He is now affiliated with the Carniege Institute. He is to be an honorary curator of the U.C. herbarium and will do a large ammount of his work here but his headquarters will be at Tucson. Smiley is to succeed him a professor. Dr. Hall is a present winding up a systematic study of Chrysothamnus which he is doing very carefully. I have had some wonderful talks with him dealing with species concept and nomenclaturial topics. He is at present very much interested in major and minor species. He believes that the minor species should be very broad. This major species is what the lay man would use; the minor species, with binonial form, are ranged under their respective major species and would the be the plaything of the systematist and would not be in the way to confuse the non-botanical man. I believe that the use of trinomials would result in this same benefit but of course it would make it necessary to continue making new combinations which would be unneccessary with major and minor species. Dr. Hall said, that he thought that he would stop off at Claremont and look over the Chrysothamnus material in th Baker herbarium, when he went by next time. I think that will be in the next month or so. He was very much interested in what I said about the herbarium. He didnt like the fact that the collection was unmounted o and that it was in a non-fireproof bldg. From what he said to me he is going to give you some suggestions, that is if he thinks you will take them in the right spirit, and he is going to try and get Carniege to help get the collection in shape and take measures to keep it safe. Needless to say this should not be repeated and perhaps I shouldnt have mentioned it. However remember that Pomona College dept of Botany certainly will not be hurt by any good opinions which Dr. Hall might have of it; infact every thing is to be gained by it and nothing is to be lost. Dr. Hall is certainly a wonderful man, one who I know you will like very greatly.

That trip out to the Majove surely sounds swell and Oh how I wish I could go along. We dont get any Spring Vacation because school started two weeks late. I think that I shall be able to see you before you go east for school is out here by the first of June and I understand that you go till the middle of the month. I think I will spend a couple of weeks home before I go out in the field on collecting expeditions that they are planning for me to take. I want to do some work in Harwood Hall at that time if I can. I have a lot of lichen determinations to put on my collections there.

Well I guess that I have made this letter long enough for this time. Please remember me to Doctor Hilton and to all the botany-bug in the department, and believe me,

Very sincerely yours,

Ivan Johnston